Appendix A: Response to Substantive Public Comments and Summary of Other Public Comments on the EA

A. Introduction

Twenty-one cards and letters were received in response to the Turnridge EA. Three letters embody all of the substantive comments received in the collection of cards and letters so response is limited to these letters. Each of the three letters is responded to individually. While content overlaps, it was easier to maintain consistency within a letter and cross reference subjects than to respond by subject and cross reference letters. The comment is in *italics*. The BLM response follows each comment.

B. Letter 1: Oregon Natural Resources Council (ONRC), Jeremy Hall

Cosigned by Cascadia Wildlands Project, Josh Laughlin. Received by FAX January 3, 2003, followed by printed copy.

Note: Section titles and most of the wording are directly from the letter. However, most of the comments as presented here are compiled from multiple paragraphs under the title, and/or multiple issues are included in the same paragraph and broken into separate comments for purposes of response.

1. Little Older Forest Remains

a. *In a watershed that provides anadromous fish and spotted owl habitat, the little late-successional forest that is on federal land must be retained. What little ecological integrity that remains in Rock Creek is mostly on the BLM lands. There is little chance of future direction calling for growing more mature forest in the Rock Creek watershed.*

Response: The overall management direction for the watershed, including the minimum of 15 percent of federal land in late-successional forest at all times, is given in the *Salem District Record of Decision and Resource Management Plan,* May 1995 (RMP). The selected action follows this management direction and would not reduce late-successional forest habitat below the 15 percent level (EA p. 48).

b. *Thinning young managed stands in the project area would meet the purpose and need of this project. The EA does not demonstrate that there are no young managed stands with merchantable timber on them that would be suitable for thinning.*

Response: The project was proposed to manage timber resources and to harvest timber from stands identified as being at or near CMAI, and thin associated younger stands within the identified project area.

c. *The EA understates the density and value of patches of old growth trees. It is highly misleading to state that the few old growth trees in units B-1, B-2, D-1 and C-2 "never reach the level of one per acre and usually have densities of less than one half old growth three [sic] per acre" (p. 31). What scale was used to produce these figures? There are patches of old growth trees inside the units in section 11 that have six or more old growth trees per acre. That this issue is clearly important to the majority of those people who sent scoping comments so the BLM must provide information that is "neither obfuscated nor misleading."*

Units B-1 and B-2 have patches of old growth trees and large snags in them that rival any of the patches of old growth in any of the units that were dropped. These units contain high densities of old, large hemlock (unusual for the Rock Creek Watershed) and provide excellent habitat for neotropical songbirds and pileated woodpeckers. Unit C-2 contains one of the largest (in diameter) trees in the entire North Santiam Watershed.

Response: The scale used is stated within the description, e.g. "in units B-1, B-2…" (EA pp. 31, 32). ONRC did not provide enough information to enable the BLM to verify the reported clumps and high densities of old growth trees. There are numerous large second growth trees (EA pp. 30-32) in these stands which the BLM believes could have been mistaken for old growth trees. No clumps or large numbers of old growth trees were found by the BLM during implementation field work. Unit C-2 was dropped. Old growth trees and many of the largest second growth would be reserved from harvest in all units (EA p.21, Decision Rationale (DR) p. 2). The current condition and impacts to habitat are described in the EA (pp. 31-34 and 45-48).

d. *"Nearly [sic] the groves considering [sic] for logging in the Turnridge project were thinned in the 1970s and 1980s and are not dense or unhealthy. In fact, these stands have relatively low canopy closures and could grow for decades before competition related mortality begins. … Given time, the stands of mature forest on BLM lands in the Rock Creek watershed could be some of the best older forest habitat in the entire North Santiam watershed."*

Response: This description of the stands does not conflict with the description in the EA. The Management Direction in the RMP for GFMA land, including these sections, is to manage primarily for timber production rather than primarily for habitat. The Turnridge timber sale was developed to implement a portion of this management direction.

2. Fire and Fuels

Fire hazard in these stands is currently low and any timber harvest would increase hazards of wildfire. Thinning young managed stands would be the better approach to reducing the risk of forest fire. There are "lots of ignition sources" and there are homes and communities which would be threatened by wildfires.

Response: Fire hazard and fuels management are addressed in the EA (pp. 23-24, 35, 49).

3. Connectivity/Diversity Block

Commented on application of management objectives and offered opinions on the best way to achieve them. Noted that citizen surveys have located red tree voles in unit C-2.

Response: BLM climbers confirmed the presence of a red tree vole nest in unit C-2. Units C-2 and C-4 have been dropped from the selected action (DR p. 2).

4. Spotted Owls

a. *"There are two historic sites within 1.2 miles of Turnridge units (EA pg. 32) that are no longer occupied. The loss of these owls is likely associated with the loss of suitable habitat. BLM has an obligation not to extirpate owls from the area."*

Given that the Santiam watershed is widely known to restrict interactions of northern and southern populations of owls, (e.g. the Santiam Area of Concern) and that owls are doing poorly in the vicinity of the Turnridge project, all efforts should be made to retain suitable habitat for owls.

27 acres of suitable habitat within the home range radius of active spotted owl sites would be "destroyed" and another six acres degraded. "The EA does not provide any information on the condition of the other forest inside the home range to determine the relative importance of the suitable habitat that would be lost with this project."

Response: The RMP Final Environmental Impact Statement (RMP FEIS) and Northwest Forest Plan (NWFP) analyze the effects of timber harvest and related activities on the northern spotted owl. The RMP provides operational guidance for management activities on the Salem District as a result of the RMP FEIS and complies with the NWFP. The EA and the Biological Assessment (BA) determined that the effects of the Turnridge project were within the range of effects analyzed in these documents and that the Turnridge timber sale is within the standards of the RMP. No evidence was presented to indicate that the Turnridge timber sale would have effects outside of the range of effects analyzed in these documents.

b. *"While the EA discloses that 86 acres of suitable habitat would be degraded due to the partial cutting, it does not disclose how many acres of habitat will be destroyed due to clearcutting."*

Response: EA p. 47, ¶1.

c. *What documentation is used for effects on owls? Refers to 2000 Willamette provincial "BiOp" as "out of date" and questions whether the BLM relied on it.*

Response: EA p. 6, item 9, ¶1. In addition, the Biological Opinion (BO) issued by the U.S. Fish and Wildlife Service (USFWS) on February 27, 2003 concurs with the FY 2003-2004 Biological Assessment.

5. Pileated Woodpecker, Other Special Status Species.

a. *"The EA fails to analyze the impacts of the Turnridge project on Pileated woodpeckers that are clearly using units…according to the Salem RMP, Dryocopus pileatus is state listed as critical."*

Response: When the Salem District Record of Decision and Resource Management Plan (RMP) was signed in May 1995, the pileated woodpecker was listed as a Bureau Assessment species (Appendix B-2). On page 29 of the RMP under Management Actions/Direction for Special Status Species, it states "Identify the impacts of proposed actions, if any, to bureau sensitive and assessment species and clearly describe impacts in environmental analyses." Since May 1995, the Special Status Species list has been revised several times. In the last revision in January, 2000, the pileated woodpecker is no longer listed as a Bureau Assessment species. Furthermore, the pileated woodpecker is no longer listed as State Critical, but is currently listed as vulnerable. Pileated woodpeckers are widespread and common throughout the Cascades Resource Area.

b. *The BLM fails to identify impacts of proposed actions, if any, to bureau sensitive and assessment species and clearly describe impacts in environmental analyses. "BLM states that the action alternatives will be beneficial to sensitive species and mentions no negative impacts. This is neither correctly identifying impacts or clearly describing them." Specifically says that BLM only mentions positive effects on "interior forest dependent species" and "find it difficult to believe" that harvest activities "will" benefit the olive sided fly catcher.*

Response: On EA pp. 47 and 48, under the heading "3) Bureau Sensitive, SEIS Special Attention, and Other Species of Concern":

"Effects Common to Thinning…Alternatives A and B",

- Bullet paragraphs 3 and 5 document potential positive contributions of specific design features/mitigation measures to specific aspects of habitat for specific species, usually developing in the long term.
- Bullet paragraph 5 uses the word "may" in regards to potential benefits to the olive-sided flycatcher, based on characteristics of its typically preferred habitat.
- Bullet paragraphs 1 and 4 describe protection of existing habitat elements or known populations.
- Bullet paragraphs 1, 2, and 6 describe negative impacts.

"Effects Specific to …Alternative A"

- Bullet paragraph 3 documents potential positive contributions of specific design features/mitigation measures to specific aspects of habitat for specific species, usually developing in the long term.
- Bullet paragraphs 1 and 2 describe negative impacts.

"Effects on Red Tree Voles"

- Bullet paragraphs 1 and 3 describe protection of existing habitat elements or known populations.
- Bullet paragraph 2 describes negative impacts.

"Effects on Survey and Manage Mollusks"

- Bullet paragraphs 1 and 2 describe protection of existing habitat elements or known populations.
- Bullet paragraph 2 describes negative impacts.

6. Roads

a. *"BLM's plans for the Turnridge project to [sic] not adequately address the need to reduce road density and upgrade roads to allow fish passage and reduce sedimentation. …there are several short dead end spurs that can be decommissioned."*

Response: Reducing road densities, upgrading roads to allow fish passage, and decommissioning roads that are not used in the Turnridge timber sale are outside of the scope of this project and are covered under other NEPA documentation. Fish passage upgrade at one road crossing is addressed in the EA, p. 27. Sedimentation from roads is addressed in the EA, pp. 17, 18, 20, and 40.

b. *Regarding sediment traps and filtering materials, EA page 20: What are they and are there studies demonstrating the most effective measures?*

Response: Typical sediment traps and filtering materials are commonly seen at construction sites and range from structures, to sterile straw bales, to wood chips in a bag, to manufactured products. Comparative studies probably exist, but none were considered when including this design feature. Sediment traps and suspending log hauling during rain events are measures that go above and beyond the Best Management Practices (BMPs) in the RMP and road maintenance plans. These design features were added to the project based on input from the City of Salem Water Department.

c. *Regarding the temporary road in unit 8 (B-2): High road density is already identified, so not even temporary new roads should be constructed. Concerned that the decision has already been made to build this road since the proposed road location has already been surveyed. Conservation groups and the City of Salem consistently express concern over new road construction. If the large snags near the proposed location would have to be felled for safety, this would be an unacceptable impact since large snags are relatively scarce in the area. Recommend deleting the area served by the proposed road and implementing the no road construction alternative.*

Response: Road construction to harvest timber is allowed under the RMP and standards and guidelines to reduce risk to resources associated with road construction were designed into the proposed action. In this case decommissioning roads after harvest activities would not add to current road densities. The City of Salem Water Department expressed no objection to this road. No snags are affected by the proposed road. No site specific evidence that this proposed road would cause undesirable impacts to resources was presented to substantiate the concerns expressed in this comment.

7. Soils and Tractor Yarding

"The EA does not disclose how far apart skid trails would be, how wide they will be, or even how many miles of skid trails there would be following yarding . While the BLM states that 10% or less of the area would be used for main skid roads, BLM does not provide information about the distribution of skid trails and admits it cannot determine how much of the project area has already been impacted by previous skid trails."

Response: All activities associated with ground based yarding, the number of skid trails, the type of equipment used and how it is used has been designed to follow the standards for ground based yarding outlined in the Salem District RMP Appendix C, section IB (RMP p. C-2, EA p. 18). These actions are designed to limit soil compaction and erosion. The IDT determined that there are "…compacted tractor skid roads and cable yarding roads in various stages of recovery" (EA p. 28). Current conditions were incorporated into the impact analysis.

8. Cumulative Effects

a. *"Conducting a limited cumulative effects analysis that only looks at the impacts of the proposed action on peak flows following a two year storm event is not sufficient." "The impacts of the proposed action will come to bear not just on a two year event, but likely on 10 and 20 year flood events."*

Response: The EA states (p., 42, i)2), first bullet item) that: "The greatest percentage change in flow rates compared to baseline…levels always occurred in the more frequent, less severe storm events with snow pack melted by the rains." "The table below shows only the two-year frequency storms since they show the greatest change." This summary of the cumulative effects was based on the detailed specialist report. This report was available for inspection during the public comment period.

b. *"BLM must look at factors such as water quantity, species viability, fire risk, and invasive weed distribution when looking at cumulative effects of the BLM actions."*

Response: These "factors" are addressed throughout the EA and in the specialist reports which contributed to the development of this EA.

c. *"…the BLM finds that the existing conditions of the watershed are poor and both action alternatives degrade the hydrological integrity. When the BLM discloses that the peak flow threshold for possibility of impacts to aquatic ecosystem is already exceeded by the existing conditions, BLM has a responsibility not to contribute to pushing a stressed ecosystem further."*

Response: The BLM analysis found a "sensitivity rating of indeterminate" for the possibility of adverse effects, a rating that does not require that the actions considered be delayed or postponed (EA p. 43). Additional information, documentation and citation of references are in the Hydrology specialist report.

9. Legacy Retention

a. *"…we feel that all legacy features should be retained, regardless of decay class of snags and woody debris. If safety is an issue…[retain] trees growing within the height radius of any [such] snag…"*

Response: The proposed action follows the standards and guidelines for snags and woody debris outlined in the RMP. No site specific information was submitted with the comment that would require additional analysis.

b. *Comments on the importance and use of a wide range of snag and CWD types and non-specific references to soft CWD concentrations in D-1. "The EA underestimates the distribution of snags with attached bark for bat habitat."*

Response: In addition to the EA, information on CWD and snag abundance is found in Stand Exam data, the Silviculture specialist report, and the Wildlife specialist report. The proposed action follows the standards and guidelines for snags and woody debris outlined in the RMP.

10. Fish

a. *"Why is the riparian reserve length different in C-2 than in all other units? Unit C-2 contains the largest diameter tree in the entire sale, yet gets the smallest riparian reserve?"*

Response: Riparian reserve width is based on site-potential tree height (RMP p. 10), not diameter. Calculations of site potential tree height are in the Silviculture specialist report based on Stand Exam data.

b. …*NMFS consultation is in progress for impacts on this species (*winter steelhead*). We consider this consultation to result in significant new information. Based on phone conversations with Jeremy Hall of ONRC, we believe that the following reflects their intent: ONRC expects NMFS consultation to reveal new information which would alter the analysis presented in the EA, making the EA insufficient.*

Response: The Turnridge project was sent for formal consultation with the U.S. Department of Commerce, National Marine Fisheries Service (NOAA Fish), NOAA reference number 2003/01046. A letter of concurrence with the determination of "may affect, not likely to adversely affect" to listed fish was issued on August 29, 2003 and received by the Salem District on September 2, 2003 (DR p. 5).

c. *Fish passage issues were not clearly described in the EA. The Resource Area Fisheries Biologist answered questions and cleared up the confusion.*

Response: The description in the EA was intended to be concise since the project had been dropped from further consideration. ONRC was the only party that asked for further information, and was apparently satisfied with the answers received. Additional information was available for review in the Fisheries specialist report in the Turnridge project file.

C. Letter 2: Karen J. Sjogren

Received December 12, 2002

Headings for the sections reflect the text of Karen Sjogren's introductory paragraphs. Text in *italics* are her comments. Quotes are in quotation marks, otherwise they are summaries of the comment.

1. Suggestions, Clarifications, and Errors

a. *ESA consultation, EA p. 6, the EA would be a more accurate assessment with final BO and BA.*

Response: The EA uses the draft BO and BA. If USFWS and NMFS (NOAA Fisheries) agree with the draft documents, then the EA has addressed the issues adequately. If either agency determines that there are more severe impacts than the BLM analyzed, additional documentation would be prepared as required by NEPA.

b. *It is not accurate to state that timber from this project would contribute to local economic diversity since the local economy is already timber dependent. Purpose and Need, EA pp. 8 & 10.*

Response: Timber remains an essential part of the local economy in the communities in the vicinity of the Turnridge Timber Sale, but these communities are no longer in a monolithic timber economy. Timber is a part of an increasingly diverse economy in the area, and in the State of Oregon.

2. Reasons for Preferring TM Alternative B, Partial Cut Harvest Only

a. *Most of the timber production in this area is on private lands, so the lower volume of Alternative B compared to A would not have a detrimental impact on the local economy.*

Response: While BLM administered lands do provide a relatively minor part of the timber in the vicinity and the timber volume from BLM would neither make nor break the local economy, it will contribute to the local and state timber industry economy in direct proportion to the volume harvested. Also, there is a cumulative effect when this logic is applied to reduce timber volume produced from other sales in the area and region.

b. *"Partial cuts now would also better contribute to a long-term sustainable supply of timber, one of the purposes of this project."*

Response: Harvest systems presented in both timber management alternatives would contribute to the long-term sustainable supply of timber, but "better" is a value judgment that could be argued in favor of either action alternative.

c. *"The stands in the regeneration harvest under Alternative A are 80-100 years old, thus having considerable value as wildlife habitat as well as commercial timber (p. 15). 18 of those acres are in connectivity habitat for Northern Spotted Owl." Canopy closure is already low in C-2.*

Concern over harm to fish in the stream adjacent to unit C-2.

Response: Both units proposed in Connectivity have been dropped.

d. *"It is disingenuous to justify clearcutting Unit A-1 of Section 3 because of increased susceptibility to windthrow if it is partial cut, and on the other hand deliberately create CWD in other units. Windthrow creates CWD. (p. 26)."*

Response: This statement shows a misunderstanding of our rationale. Regeneration harvest was proposed because the stand has reached CMAI and is suitable for regeneration harvest as a timber management silvicultural system as described under Management Actions/Direction for the General Forest Management Area in the RMP (p. 48). The discussion about windthrow pertained only to a partial cut harvest, so this unit was deleted from Alternative B as unsuitable for a partial cut harvest system. In a partial cut harvest, the trees would be relatively evenly distributed across the unit and the anticipated windthrow in this particular stand would, in the judgment of the IDT that examined the stand, topple many more trees than are desired for CWD, and would damage timber which could otherwise be harvested or remain standing.

e. *"A partial cut would be less likely to impair the proper functioning of the affected creeks in a watershed which contributes to Salem's drinking water supplies. (p. 28-29)."*

Response: This is an intuitive statement which is not supported by quantitative modeling based on research, or by the on-site assessment of the IDT. The City of Salem Water Department, Green Island treatment facility, provided input to the project.

f. *"A partial cut would be less likely to impair resident fish and aquatic life habitat and the salmonid spawning and rearing habitat one mile downstream of the project site."*

Response: See the response to #e, above. A BLM Fisheries Biologist participated in the IDT development of the alternatives.

g. *"The WAR values are slightly higher for Alternative A as opposed to Alternative B for "unusual" storm events. Having been flooded out during the "unusual" storm event of 1995-96, I would choose the more cautious alternative even if that is not required."*

Response: In WAR modeling, a change of ten percent is considered to be the detectable threshold. Anything less would not be a detectable difference. War modeling indicates that if all anticipated potential harvest were done on all ownerships, including BLM Alternative A, peak flows would increase only 2.8 percent, or less than one third of the minimum detectable increase. The BLM contribution to this is modeled as 0.8 percent for Alternative A, less than one tenth of the minimum detectable threshold. The difference between the peak flow contributions from Alternative B compared to Alternative A is less than one twentieth of the minimum detectable threshold. In summary, WAR modeling and the professional judgment of the Hydrologist on the IDT indicate that there would be no discernable difference in flows regardless of whether the BLM implemented Timber Management Alternative A or B, or the No Action Alternative. See pages 42-44 of the EA.

h. *"Alternative A does not retain enough green trees in the Regeneration Harvest Units (6-8 future "large" trees) p. 44."*

Response: Green Tree Retention exceeds RMP requirements on all units (RMP p. 48, DR p.2).

i. *"Alternative A would remove 81 acres of mature forest habitat for goshawks, rather than degrade it as Alternative B does. (p. 47)."*

"The cumulative effect of Alternative would reduce late successional forest in the Middle North Santiam Watershed by 2%, a not insignificant percentage. Alternative B would reduce this habitat by 1%, based on a comparison of MBF removed."

Response: RMP requirements for Late Successional and Old Growth forest to provide habitat for dependent species are exceeded under both alternatives. (EA p. 48; RMP pp. 22, 25)

j. *"A partial cut would 'provide some level of intermediate timber harvest, retain options for future stand management, and maintain canopy cover to provide for other resource values.' (EA, p. 8)."*

"For Alternative A, canopy closure is less than 10% and only 10-12 trees per acre are left (p. 16), with only 6-8 of these trees destined to remain as mature, live trees (p. 22)."
"The Proposed Alternative (A) "may affect, likely to adversely affect" the spotted owl, which has been observed in the vicinity of the timber sale. Although Alternative B also opens up the canopy with partial cuts, a quicker recovery is possible because more of the canopy-forming trees are left in place.
"A partial cut harvest would downgrade Spotted Owl Habitat less than clearcutting. My concern encompasses not only the two active owl sites but also the two historic sites, which could again become occupied if conditions were favorable (p. 32). Alternative A would remove 81 acres of suitable habitat for the Spotted Owl (p. 47). Although the partial cut also downgrades owl habitat to non-suitable, that habitat recovers in fewer decades. The continued decline of this species dictates caution, even on Matrix forests and especially forests connecting to reserves."
"Alternative A involves site preparation and reforestation practices resulting in extra work, more likely introduction of noxious weeds, and burning resulting in possible reduction in air quality and loss of nitrogen (p. 30). There is also the risk of wildfire and burning green trees meant to be saved (p. 49)."
"Alternative A would clearcut D-6.1 and 6.2, which are separated by a stream and Riparian Reserves and consist of 100 year old trees."
Partial cuts appear to be more appropriate for these units, even if they have reached CMAI, based on the values served by remaining trees outside of commercial timber production."
"A partial cut harvest would leave the area more visually attractive and amenable to my own recreational use of the area. (p. 50)."

Response: The above comments are additional reasons why Karen Sjogren and others preferred Alternative B over Alternative A.

D. Letter 3: Northwest Environmental Defense Center

Received by FAX 01/03/2003 from Erin Uhlemann

Numbered headings are headings used in the comment letter. NEDC comments are in *italics*. Direct quotes are in "quotation marks"; otherwise they are paraphrased for brevity.

1. Purpose and Need

a. *"BLM must document the "need" by showing there is an actual demand for the timber produced by this sale."*

Response: The Oregon and California Revested Lands Sustained Yield Act (O&C, 1937), the Federal Land Policy and Management Act (FLPMA, 1976) and the RMP define the "need".

b. *"…this purpose and need violates the [NEPA]…because it is unreasonably narrow and explicitly precludes any other alternative that does not result in timber extraction…"*

Response: The Purpose and Need is specific to implementation of the RMP. Other alternatives were analyzed in the RMP FEIS. The Turnridge project was designed to implement the alternative selected in the Record of Decision (ROD) for this EIS and the management objectives described in the RMP.

2. Oregon Water Quality Requirements

a. *"An increase in water yield correlates with the removal of the conifer over-story. EA-40. BLM fails to compare the increase yield in Alternative A and Alternative B. BLM admits a small increase in water yield is expected but does not define small or the increased expectation using Alternative A. The water yield will be much greater in areas where a regeneration cut occurs than in areas where a partial cut will occur. This difference must be addressed."*

Response: The statement the comment refers to on page 40 of the EA is a summary statement based on the conclusions of the Hydrology specialist report which was available for inspection during the comment period. Information in the Hydrology specialist report provides the basis for this conclusion. The comment provides no evidential basis for disputing the conclusions of the specialist report or the EA.

b. *"Any increase in water yield which results in an increase in the rate of stream flow will violate ACS Objective 6." "Any temperature change will violate ACS Objective 4."*

Response: Appendix B of the EA documents how the project conforms to ACS Objectives. No temperature change is expected because the canopy along all streams would be retained in the selected action (EA p. 40, 41).

c. *"BLM claims the low levels of soil erosion equates to low stream turbidity, but fails to provide any scientific support for this conclusion as required by NEPA. EA-41" "As a result of the reduction in duff and litter layers [from broadcast burning] the soil will lose its ability to absorb water." "BLM fails to consider how logging and broadcast burning proposed in the two action alternatives will affect turbidity."*

Response: The EA describes the risk of soil erosion (low) and the filtering effects of the Riparian Reserve (EA p. 40) and presents the summary conclusion that the risk of soil entering streams from the harvest units is low.
The statement that burning under the conditions described in the EA (p. 19) "will" cause the soil to "lose its ability to absorb water" is unfounded and the commenter presents no evidence to refute the effects described in the EA (pp. 39, 40) or to use as a basis for response. The EA (p. 17) discusses design features and their relation to soil erosion and water quality. The effects are described in summary statements in the EA (pp. 40, 41) and are analyzed in detail in the Soils, Hydrology and Fire Management specialist reports which were made available for inspection during the public comment period.

d. *"NEPA requires the BLM to assess the synergistic effects of its actions. 40 C.F.R. § 1508.7."*

Response: 40 CFR 1508.7 defines the term "Cumulative Impact". The term "synergistic" does not appear in the definition.

3. Riparian Reserves

a. *"The preferred alternative provides for an additional Riparian Reserve Project (Project 2). … It is misleading for BLM to present the restoration project as a package with the timber sale when it is a distinct proposal to be done at BLM's will. Project 2 should occur independently of the timber sale. …Moreover, the BLM should not rely on this restoration project as mitigation for any adverse effects of the timber sale. We request that this is clarified in forthcoming NEPA documentation."*

Response: The EA presents two distinct projects and does not present Project 2 in any way as mitigation for any adverse effects of the timber sale.

b. *"…Project 2 will only be done 'as time and money are available.' EA-17. …If the timber sale is approved, Project 2 should be incorporated into the actual timber contract, funded solely by the timber company receiving the contract."*

Response: It would be illegal ("augmentation of funds") to fund this project by including it in the timber sale contract. The statement in comment 3b contradicts the statement in comment 3a.

4. Old Growth and Late Successional Vegetation

"BLM should be commended for their decision to drop the units containing large portions of old growth due to public comment. EA-12. The EA further notes that all old-growth trees will be retained, even in the regeneration harvest units. EA23. Although large, old trees provide habitat, BLM should focus on protecting the ecosystem around the individual old growth trees.

This sale primarily cuts late-successional forest that was thinned in the 1970s and 1980s. EA-30,31. This forest is healthy and not overstocked. Until the BLM demonstrates with scientific information that management in mature and old growth habitat is warranted, this project should be withdrawn."

Response: Management Objectives and Actions/Direction for Matrix land are described in the RMP (pp. 20-22). The EA documents that the Turnridge timber sale project is consistent with the RMP. With the exception of ten acres of commercial thinning, the stated purpose of Project 1 is timber harvest, not stand improvement.

5. Roads

a. *"The EA fails to examine any of the impacts caused by the temporary road construction… Roads harm… The EA does not examine any of these environmental impacts."*

Response: EA p. 39 addresses the effects of this road on long term soil productivity. EA p. 40 addresses erosion and sediment production for the entire project, including the road.

b. *"BLM notes that a new road construction alternative could be implemented by 'simply excluding five miles [sic] of partial cut.' EA-27 BLM should implement the no new road alternative."*

Response: Correction: should read five <u>acres</u>, not five miles.

6. Invasive Vegetation

a. *Machinery washing "does not eliminate the risk of promoting establishment of exotic plant species in the proposed project area." "By opening the canopy and disturbing soil, BLM will create a fertile, productive environment to further the establishment of the invasive plant species"*

Response: No claim of "eliminating the risk" was made in the EA. Some weeds are already in the area (EA p. 31) and no significant spread would be expected as a result of the project (EA p. 45). Eliminating risk is neither possible nor required. Noxious weed management is addressed in the RMP and the *Northwest Area Noxious Weed Control Program and Western Oregon Program – Management of Competing Vegetation.*

b. *Comment paragraph describes three reasons NEDC believes the analysis on page 45 is "questionable": 1) Allowing new populations to become established in the project area promotes their spread across the landscape. 2) Since the existing Priority III species were not listed the public cannot determine whether they will be slowed as the canopy closes and the public needs a list of the dominant invasives to comment on this theory. 3) Once established, invasive species are extremely difficult to eradicate, even when the habitat becomes less ideal.*

Also asserts that: "BLM does not deal with invasion of herbaceous species which do not affect economically important trees but have a significant impact on the overall health of the ecosystem."

Response: Items 1) and 3): Populations are already established, EA p. 31.
Item 2): These lists are in the Botany specialist report which was available during the comment period. No one from the public examined the report nor requested a copy of the list.
Last quote: The analysis included all invasive species found in the area and was not in any way limited to those species which affect trees.

c. *"BLM will manage 'competing vegetation to minimize effects overall stand growth.' indicating invasion of unwanted tree species will be limited. EA-21."*

Response: The quote from the EA is both inaccurate and out of context. It does not apply to invasive weeds or unwanted tree species, but to brush competition with planted trees. The previous statement in the EA states that "Natural regeneration of tree species would also be encouraged to ensure a diversity of species and genetic stock in the future stand."

d. *There is no indication that the BLM has complied with the recent court ruling in Blue Mountains Biodiversity Project v. United States Forest Service. … Requested that the BLM revise the proposed timber sale to reflect the requirements outlined in this case.*

Response: The commenter has not specified what requirements of the case are deemed to apply to this project, what portion of the project does not meet the requirements, nor describes their concern about this project as it relates to this case.

7. Threatened, Endangered and Sensitive Wildlife Species

a. *The first four paragraphs of this section deal with the legal sufficiency of several aspects of the EA: the timing of the Biological Opinion and the release of the EA; comparing environmental effects and values to economic and technical analyses; lack of public access to information necessary to analyze the proposal; failure to protect habitat; etc.*

Response: Protocols and requirements were followed. The project file with all information was available for public inspection during the comment period.

b. *"…failure to even list mitigation measures [to protect the spotted owl] certainly fails to meet the procedural requirements of NEPA."*

Response: Design features and mitigation measures specific to spotted owls and other species are listed on page 23 of the EA. Design features and mitigation measures generally dealing with elements of habitat are described on pages 22 and 23 of the EA. Environmental effects on habitat are described beginning on page 45. Effects specifically on the Northern Spotted Owl are described on pages 46 and 47 of the EA. Effects on other species are described beginning on page 47 of the EA.

c. *"Amphibians. Several Bureau Sensitive amphibian species were found in the sale units, although only one species, the Oregon slender salamander is named. EA-32. The EA does not name the other species or note if they have survey and manage status."*

Response: The EA states (p. 32) that several amphibian species were found during surveys, including the Oregon slender salamander (which is) a Bureau Sensitive species. It does not say that several Bureau Sensitive species were found. A complete list of species found is in the Wildlife specialist report that was available for inspection during the comment period.

d. *The proposed action will surely impact amphibians. "BLM fails to assess the impact of the preferred alternative on any of the amphibian species."*

Response: Assessment of impacts is included in several statements on page 47 of the EA. The net effect described is that there are recognized short-term impacts to populations in the sale area, but on a landscape scale in the area, and in the long term in the harvest units, there is no significant impact to the species.

e. *Bats: "It is unclear whether BLM surveyed for any bat species. The agency claims that four unnamed species of bats could potentially be found in the units. EA-32. Again, BLM notes only that impacts may occur but fails to adequately assess those impacts. If BLM has not completed bat surveys, this proposal must be withdrawn until the information is available for public comment."*

Response: Surveys were done for habitat for Protection Buffer and Bureau Tracking bat species, concurrent with other surveys in the area. Where habitat is present, the presence of these bats is presumed. The assessment of impacts to bats is described on page 47 of the EA. Additional information is contained in the Wildlife specialist report, which was made available for inspection during the comment period.

f. *Red Tree Voles: "…Unit D still contains twelve nest sites, three of which are active…Unit D-6 was only modified to provide an one tree-site [sic] potential buffer…leaving isolated islands of habitat around the vole nests. EA-48. The EA makes no effort at determining the effect on the voles due to habitat fragmentation.*

Additionally, BLM has contracted a surveyor to return to survey the site again for voles. The EA should be delayed until the results of this second survey are complete."

Response: The EA states that "Twelve potential nest structures were found.." (p. 33), not "twelve nest sites". The potential nest structures were examined and three were found to be active nests (p. 33). The requirement (*Management Recommendations for the Oregon Red Tree Vole, Version 2.0 - 9/27/2000*) for a protection buffer for this species is ten acres of contiguous habitat with no activity allowed within one site-potential tree height (approx. 200 feet) distance of the nest site EA p. 23). The presence of one additional nest was confirmed by the additional surveys referred to in the comment and the entire unit C-2 was dropped from the proposal as a result. The EA concludes (p. 48) that no effects to the inhabitants of known red tree vole nests are anticipated with the required protection buffer.

g. *Mollusks: Four survey and manage mollusks were found, protection buffers are provided for known sites of one species. "BLM completely fails to assess the impact of the proposed action on the mollusk species."*

Response: The other three species were dropped from the Survey and Manage list (EA p.31). Additional information is in the Wildlife specialist report, which was made available for inspection during the comment period.

8. Fire Considerations

a. *"First, the quantities of large snags and coarse woody debris (CWD) in the Turnridge planning area already do not meet Northwest Forest Plan Standards. … To minimize wildfire hazard, these areas [regeneration harvest units proposed under Alternative A] will b burned to reduce fuel loading. EA-23. Reducing fuel loading will reduce the amount of CWD to levels even lower than those required by the Northwest Forest Plan. BLM must provide evidence that wildfire hazard is great enough to justify removal of already insufficient amounts of snags and CWD."*

Response: Existing snags would be protected, including protection from fire (EA p. 22). Wildfire hazard reduction after regeneration harvest is only one of the reasons for either broadcast burning or pile and burn, not the only reason as presented in this comment. The other primary reason is site preparation to facilitate tree planting and successful reforestation of the sites (EA p. 24). There is no requirement that wildfire hazard alone be the only justification for accepting some impact to snags and CWD, only that operations be done in accordance with the RMP.

b. *"Second, BLM does not suggest in the EA whether the CWD and snags created in Alternative A will replace those that will likely be lost in the burn or to make up for the current deficit in CWD…BLM has not demonstrated that [the NFP] requirement is met."*

Response: Enough snags and coarse woody debris would be retained and/or created by the design features in the proposed timber harvest to approach NWFP standards of 2 snags per acre (EA p. 45) and 240 lineal feet per acre of decay class 1 and 2 CWD at least 20 inches diameter and 20 feet long (EA p.23).

c. *"Finally…precautions will have to be taken during the burn to ensure that [Oregon slender salamander] habitat [CWD in later stages of decay] is not destroyed. …The short term habitat destruction issue was not addressed."*

Response: Existing large snags and down logs would be retained where feasible during all operations (EA p.22). Short-term impacts to CWD habitat are addressed in several paragraphs on pages 45-48 of the EA.

9. Cumulative Effects

a. *"The EA fails to fully disclose the cumulative effects of timber harvest and road developments on water quality, forest health, wildlife habitat, noxious weeds, cultural resources and other resources. The EA must provide analysis of the cumulative impacts of the project."*

Response: The EA discloses the effects of the action alternatives on each of the affected resources to the extent necessary for the decision maker and the knowledgeable reader to determine that the immediate and cumulative effects are within the ranges analyzed for the RMP.

b. *Under the hydrology section…the EA fails to include past or concurrent federal projects (including Sink or Swim); details of Oregon Department of Forestry projects and their affect on this watershed; and past, present or future private land projects. EA-41. "The section on cumulative impacts refers only to the effects the projects may have on flood potential but completely fails to assess the impact on turbidity, stream temperature, dissolved oxygen or sediment."*

Response: All past projects on all ownerships are included, by their nature, as elements of the existing condition, or "Affected Environment." There are no other federal projects in these sixth field watersheds. Details of the ODF plans are background material and are located in the project file, which was made available for inspection during the comment period. Specific plans for private harvest are proprietary information and are not available.
Therefore, analysis was done on a "highest impact" scenario where it was assumed that all mature timber on private lands would likely be harvested in this decade (EA p. 41). Anything less than the harvest levels in this assumption would reduce potential impacts and is, therefore, within the range analyzed in this EA.

Additional details are included in the specialist report in the project file, which was available for inspection during the comment period. Assessment of impacts on turbidity, stream temperature, dissolved oxygen and sediment are documented on page 40 of the EA.

c. *"In the wildlife section..[t]he EA completely fails to assess the cumulative impact that this or any other … project will have on the species found at the Turnridge site."*

Response: The RMP, to which this EA is tiered, is based on NEPA analysis of cumulative impacts to habitat and species on a landscape level. The EA documents that the effects of timber harvest under the Turnridge proposal is within the standards put forth in the RMP to be within the range of effects analyzed in the documents to which it is tiered.

E. A Summary of Other Comments

This section summarizes the comments of the 18 cards and letters not covered above and for which no direct response is being prepared.

- *General concerns about water quality, clean water, and drinking water*
- *General concerns about cumulative effects*
- *Don't cut old growth or mature forest*
- *These forests are pristine/majestic*
- *General concerns about wildlife habitat*
- *General concerns about wildlife species*
- *No new roads*
- *Public trust and BLMs role to protect the environment*
- *"No biological reason to harvest …" Usually referred to harvest units 7 & 8.*
- *Red tree voles mentioned frequently.*
- *"Citizen survey" finding red tree voles.*
- *These are some of the finest stands on public lands in the watershed.*
- *"I remember the floods of '96."*
- *There is extensive logging in the watershed.*
- *"The fact that this project "may effect [sic], likely to adversely affect" the spotted owl is just another reason why clearcutting late-successional forest in the Rock Creek watershed is not a sound concept"*
- *"All known red tree vole sites must be buffered…"*
- *"While we are not adverse to the use of ground-based yarding equipment on flat ground away from streams when thinning young managed stands, we are concerned when older recovering forests will be replaced with clearcuts scoured with skid trails."*
- *"Wolf Trees"(EA p. 11) and "WAR" (EA p. 43) need to be defined in context and in glossary.*
- *The location of the new temporary road should be more plainly identified.*

- *The units need to be more clearly labeled and easily identified on the access map.*
- *Proposal for unit A-1 is unclear, cites what appear to be contradictory references on pp. 14, 15, 16 and 46.*
- *Old-growth conditions* [in connectivity] *could not be achieved in 100-120 years.*
- *Disagrees with*
  - *Creating wolf trees by killing trees in reserve areas (especially Riparian Reserve). Prefers to let structure develop by natural processes.*
  - *Creating snags in Riparian Reserves and in the units (especially regeneration harvest units) since this reduces the number of "good" trees standing.*
  - *Disagrees with artificial snag creation*
- *Approves of the Following Under Both Alternatives*
  - *Renovation of BLM roads, updating drainage systems, and maintenance. pp. 14, 17*
  - *Reducing soil disturbance by re-using already impacted areas, dry soil operating season, and other design features. pp. 17, 18*
  - *Protection of the residual stand by leaving all old-growth trees and many of the largest second-growth trees. p. 21*
  - *Protection of early decay class snags and known locations of red tree voles and mollusks. pp. 22, 23*
  - *Making Special Forest Products permits available to salvage these products.*
  - *Dropping proposed units due to presence of red tree voles, mollusks, etc.*
- *"Our members…have a strong interest in improving forest ecosystems. The proposed Project 1 threatens this interest."*
- *"Therefore, we recommend implementing only the riparian restoration proposal, Project 2."*
- *"if any logging must be done. [sic] Alternative B. Allowing only partial cut and no regeneration harvest is far superior to the preferred Alternative."*
- *The No Action Alternative "is never actually considered as a viable alternative to the extraction provided in Alternatives A and B."*